

REMARKS

This communication is in response to the non-final Office Action mailed on December 27, 2007 (“Office Action”) in which claims 1, 5-16, and 19-24 were pending. The Office rejected claims 1, 5-16, and 19-24. With this response, claims 1, 8, 19, and 24 are amended, and new claims 25-28 are added. No new matter is added. Further, no new claim fees are required, since the added claims are dependent claims that are fewer in number than the number of previously canceled claims. Applicants respectfully request reconsideration of the rejections and allowance of this application in light of the amendments and in view of the arguments presented below.

REJECTIONS UNDER 35 U.S.C. §102(b)

The Office rejected claims 1-4, 7-13, and 19-20 under 35 U.S.C. §102(b) over U.S. Patent No. 5,974,253 (“Nahaboo”) at pages 2-8, paragraph 4 of the Office Action. Applicants respectfully traverse the rejection.

In general, Nahaboo discloses “an extremely flexible interface development tool that can be used regardless of the application.” *See Nahaboo*, col. 1, lines 29-31. Thus, the Egeria tool disclosed by Nahaboo is used to design a user interface for other applications.

Claim 1 recites “building graphical objects within the graphical interface according to the interpreted configuration commands.” In contrast to claim 1, Nahaboo discloses that the Egeria editor has two operating modes: editing and execution. *See Nahaboo*, col. 6, lines 60-61. Additionally, Nahaboo discloses that the program displays a base menu through which both the editing function and the create function are accessed. *See Nahaboo*, col. 2, lines 38-42. Further, Nahaboo discloses that the editing function “allows the user to edit the attributes of a ‘widget’ in a separate window.” *See Nahaboo*, col. 2, lines 50-52 (emphasis added). The “Save” and “Load” commands disclosed by Nahaboo in column 13, lines 32-35 do not meet the limitations of claim 1. The saved backup merely saves an interface that has already been configured (i.e., a modified matrix array). *See Nahaboo*, col. 1, lines 56-60 and col. 4, line 67 to col. 5, line 4. In

Nahaboo, when reloading the saved interface with the “Load” command, the saved interface does not contain “configuration commands” that are loaded into a command interpreter. Further, in Nahaboo, the loaded “saved interface” does not modify a graphical user interface by “building” objects or “assigning functionality to the built objects,” as recited in claim 1. Rather, the configuration in Nahaboo is already fixed and predefined by the saved file. The configuration of the application in Nahaboo is not modified at run time during execution of the tool, but rather is implemented at run time by loading the fixed and predefined file. Hence, Nahaboo fails to disclose or suggest all of the elements of claim 1, or of claims 5-7, 25 and 26, at least by virtue of their dependency from allowable claim 1.

Further, Nahaboo does not disclose or suggest “displaying the graphical objects within the graphical interface according to the interpreted configuration commands,” “wherein the graphical objects are selectable by a user to access the assigned functionality to produce an integrated circuit design,” as recited in claim 1. Instead, Nahaboo discloses that the graphical objects are loaded and executed from the saved file. The user interface of Nahaboo is produced from the saved file, and are not built as recited in claim 1. Further, Nahaboo fails to disclose or suggest “wherein the graphical objects are selectable by a user to access the assigned functionality to produce an integrated circuit design,” as recited in claim 1.

Hence, Nahaboo fails to disclose or suggest all of the elements of claim 1, or of claims 5-7, 25 and 26, at least by virtue of their dependency from allowable claim 1. Therefore, the rejection of claims 1 and 5-7 should be withdrawn.

With respect to claim 8, Nahaboo does not disclose or suggest “upon execution of a command processor, loading a top level Tool Command Language (TCL) command into a namespace, the command processor including a graphical user interface (GUI) without graphical objects,” as recited in claim 8. Instead, Nahaboo discloses that the program displays a base menu (i.e. a graphical object) through which both the editing function and the create function are accessed. *See Nahaboo*, col. 2, lines 38-42. Hence, Nahaboo fails to disclose or suggest at least one element of claim 8.

Further, as described above, Nahaboo does not disclose or suggest “building graphical objects within the graphical interface according to the interpreted configuration commands,” as recited in claim 8. Nahaboo does not allow for objects to be built and functionality to be assigned in the manner recited in claim 8. Rather, in Nahaboo, the objects are selected from a pre-defined menu by a separate editor, not through configuration commands loaded through a command processor upon execution of the command processor. If the particular interface is saved as a backup and then loaded, the loaded file includes pre-defined graphic objects rather than a script containing configuration commands that are loaded into the command processor. In contrast, when reloaded, the interface of Nahaboo contains pre-defined objects and functionality. Nahaboo et al. also do not provide for configuration commands to be loaded by the user through a command line during execution.

Further, Nahaboo does not disclose or suggest “displaying the graphical objects within the GUI according to the TCL configuration commands, the graphical objects selectable by a user to produce an integrated circuit design,” as recited in claim 8. Nahaboo fails to disclose or suggest that the graphical objects are selectable by a user to produce an integrated circuit design, as recited in claim 8. Hence, Nahaboo does not disclose all of the elements of claim 8, or of claims 9-16 at least by virtue of their dependency from allowable claim 8. Therefore, claims 8-16 are allowable and should be withdrawn.

With respect to claim 19, Nahaboo fails to disclose or suggest “assembling a graphical user interface having no hard coded objects and including at least one graphical user interface (GUI) component based on interpreted configuration commands from the user, the at least one graphical user interface (GUI) component selectable by a user to access an associated function to generate an integrated circuit design,” as recited in claim 19. Instead, Nahaboo discloses that the Egeria program includes user selectable base menu (i.e., a hard coded object) to access edit and create functions. *See Nahaboo*, col. 2, lines 38-42. Further, Nahaboo fails to disclose or suggest a GUI component selectable by a user to access an associated function to generate an integrated circuit design, as recited in claim 19. Hence, Nahaboo does not disclose or suggest all of the

elements of claim 19, or of claims 20-23, at least by virtue of their dependency from allowable claim 19.

For at least the foregoing reasons, claims 1, 5-16, and 19-23 are allowable over Nahaboo. Applicants respectfully request reconsideration and withdrawal of the rejections under 35 U.S.C. §102(b) over Nahaboo.

REJECTIONS UNDER 35 U.S.C. §103(a)

The Office rejected claims 5-6, 14-16, and 21-24 under 35 U.S.C. §103(a) over Nahaboo in view of U.S. Patent No. 5,493,508 (“Dangelo”) at pages 8-13, paragraph 7 of the Office Action. Applicants respectfully traverse the rejection.

With respect to claims 5 and 6, claim 6 depends from claim 5, which depends from claim 1. As discussed above, Nahaboo fails to disclose or suggest “building graphical objects within the graphical interface according to the interpreted configuration commands,” as recited in claim 1. Further, Nahaboo does not disclose or suggest “displaying the graphical objects within the graphical interface according to the interpreted configuration commands,” “wherein the graphical objects are selectable by a user to access the assigned functionality to produce an integrated circuit design,” as recited in claim 1. Dangelo fails to overcome the deficiencies of Nahaboo. In particular, Dangelo discloses that “modern simulation tools aid considerably in verifying the function of a digital integrated circuit.” *See Dangelo*, col. 1, lines 42-45. However, Dangelo fails to mention “building graphical objects within the graphical interface according to the interpreted configuration commands” and “displaying the graphical objects within the graphical interface according to the interpreted configuration commands,” “wherein the graphical objects are selectable by a user to access the assigned functionality to produce an integrated circuit design,” as recited in claim 1. Hence, the asserted combination of Nahaboo and Dangelo fails to disclose or suggest at least one element of claim 1, and of claims 5 and 6, at least by virtue of their dependency from allowable claim 1. Therefore, the rejection of claims 5 and 6 over the asserted combination of Nahaboo and Dangelo should be withdrawn.

With respect to claims 14-16, claims 14-16 depend from independent claim 8. With respect to claim 8, Nahaboo does not disclose or suggest “upon execution of a command processor, loading a top level Tool Command Language (TCL) command into a namespace, the command processor including a graphical user interface (GUI) without graphical objects,” as recited in claim 8. Instead, Nahaboo discloses that the program displays a base menu (i.e. a graphical object) through which both the editing function and the create function are accessed. *See Nahaboo*, col. 2, lines 38-42. Further, Nahaboo does not disclose or suggest “building graphical objects within the graphical interface according to the interpreted configuration commands,” as recited in claim 8. Nahaboo does not allow for objects to be built and functionality to be assigned in the manner recited in claim 8. Rather, in Nahaboo, the objects are selected from a pre-defined menu by a separate editor, not through configuration commands loaded through a command processor upon execution of the command processor. Hence, Nahaboo fails to disclose or suggest at least one element of claim 8.

Dangelo fails to overcome the deficiencies of Nahaboo. Instead, Dangelo discloses “a Graphical User Interface (Graphical UI) 806 facilitates user interaction with the CDE by: abstracting out those steps of the design flow that do not require the designer's intervention, assisting and guiding the designer through the various stages of the design process as outlined by the synthesis framework, and assisting the designer in the composition of the constraints file for optimization.” *See Dangelo*, col. 16, lines 35-42. Dangelo fails to disclose or suggest “building graphical objects within the graphical interface according to the interpreted configuration commands,” as recited in claim 8. Further, Dangelo does not disclose or suggest “upon execution of a command processor, loading a top level Tool Command Language (TCL) command into a namespace, the command processor including a graphical user interface (GUI) without graphical objects,” as recited in claim 8. Instead, Dangelo discloses a graphical user interface with a graphical map. *See Dangelo*, Figure 8. Hence, the asserted combination of Nahaboo and Dangelo fails to disclose or suggest all of the elements of claim 8, or of claims 14-16, at least by virtue of their dependency from claim 8.

With respect to claim 24, Nahaboo and Dangelo, alone or in combination, do not disclose or suggest “a command processor having a graphical user interface and a command interpreter for interpreting user commands, the graphical user interface specified entirely by a user via a user input including one or more configuration commands provided to the command processor at run time of the command processor and interpreted by the command interpreter, wherein the configuration commands build graphical objects within the graphical user interface and assign functionality to the built graphical objects,” as recited in claim 24. Instead, Nahaboo discloses an interface generator that produces widgets in a separate window and stores the produced widgets. *See, e.g., Nahaboo*, col. 2, col. 2, lines 50-52, col. 1, lines 56-60 and col. 4, line 67 to col. 5, line 4.

Dangelo fails to overcome the deficiencies of Nahaboo. In particular, Dangelo discloses a graphical user interface that abstracts “those steps of the design flow that do not require the designer's intervention, assisting and guiding the designer through the various stages of the design process as outlined by the synthesis framework, and assisting the designer in the composition of the constraints file for optimization.” *See Dangelo*, col. 16, lines 35-42. Dangelo does not disclose or suggest a “graphical user interface specified entirely by a user via a user input including one or more configuration commands provided to the command processor at run time of the command processor and interpreted by the command interpreter,” as recited in claim 24.

Further, Nahaboo and Dangelo, alone or in combination, fail to disclose or suggest “wherein the configuration commands build graphical objects within the graphical user interface and assign functionality to the built graphical objects,” as recited in claim 24. Hence, the asserted combination of Nahaboo and Dangelo fail to disclose or suggest all the elements of claim 24, or of claims 25-26, at least by virtue of their dependency from allowable claim 24.

These elements would not be obvious to a person of ordinary skill in the art since Nahaboo et al. disclose such a different method for altering an interface. Nahaboo et al. require selection

from predefined objects and functions, such as from a table of functions or attributes using a separate editor during an edit mode.

In view of the foregoing discussion, the rejection of claims 5, 6, 14-16, and 24 over the combination of Nahaboo and Dangelo should be withdrawn. Reconsideration and notice to that effect is respectfully requested.

NEW CLAIMS

With this response, new claims 25 and 26 are added, which depend from allowable claim 24. Claim 25 recites “wherein the command processor interprets the user input to generate at least one graphical object within the graphical user interface associated with at least one design tool of the one or more design tools.” None of the cited references, alone or in combination, disclose or suggest all of the elements of claim 25.

Further, new claim 26 recites “wherein the graphical object is selectable by the user to load the at least one design tool into the graphical user interface, the graphical user interface accessible by the user to produce an integrated circuit design.” None of the cited references, alone or in combination, disclose or suggest all of the elements of claim 26.

New claims 27 and 28 are also added, which claims depend from claim 5, which depends from allowable claim 1. Claim 27 recites “wherein at least one of the graphical objects is associated with at least one integrated design tool of the suite of integrated circuit design tools.” None of the cited references, alone or in combination, disclose or suggest all of the elements of claim 27. New claim 28 depends from claim 27. Claim 28 recites “wherein the at least one integrated design tool is executable by the command interpreter to design and test an integrated circuit layout, and wherein the at least one of the graphical objects is selectable by the user to access the at least one integrated design tool.” None of the cited references, alone or in combination, disclose or suggest all of the elements of claim 28.

CONCLUSION

Applicants have specifically pointed out elements of the pending claims that are not disclosed or suggested by the cited references, alone or in combination. With this response, all of pending claims 1, 5-16, and 19-28 are in condition for allowance. Applicants respectfully request reconsideration of the pending rejections and an indication of allowability with the respect to the pending claims.

The Examiner is invited to contact the undersigned attorney at the telephone number listed below if such a call would in any way facilitate allowance of this application. The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,

WESTMAN, CHAMPLIN & KELLY, P.A.

By: /R. Michael Reed/
R. Michael Reed, Reg. No. 59,066
900 Second Avenue South, Suite 1400
Minneapolis, Minnesota 55402-3319
Phone: (612) 334-3222 Fax: (612) 334-3312

RMR/rkp